

Dr. SHIKHA KAUSHIK

Assistant Professor
Department of Chemistry
Rajdhani College, University of Delhi



Educational Qualifications

| Degree | Institution |
|---------------------------|---|
| Ph.D. | University of Delhi, Delhi |
| M.Sc. (Organic Chemistry) | SGTB Khalsa College, University of Delhi, Delhi |
| B.Sc. (H) Chemistry | SGTB Khalsa College, University of Delhi, Delhi |

Awards and Fellowships

- Best Paper Award in *National Seminar* on “Recent Innovations in Chemical Science and Environment Technology” organized by Department of Chemistry, Sri Aurobindo College University of Delhi, Delhi. (March 03-04, 2017).
- Best Paper Award in *National Symposium* on Recent Advances in Analytical Sciences and Applications, Department of Chemistry, Himachal Pradesh University, Shimla. (April 12-14, 2010).
- Best Poster Award in *International Symposium* on Trends in Drug Discovery and Development, Department of Chemistry, University Of Delhi (January 5-8, 2010).
- Recipient of “UGC Research Fellowship in Science for Meritorious Students (RFSMS) 2007-08”, Department of Chemistry, University of Delhi, Delhi-110007.
- Awarded the Joint CSIR-UGC (Council of Scientific and Industrial Research- University Grants Commission) for Lectureship- National Eligibility Test (NET).
- Awarded Durga Prabodh Singh Memorial Scholarship, B. Sc. (H) Chemistry for Outstanding performance in Chemistry, S.G.T.B. Khalsa College, University of Delhi, Delhi-110007.

Publications

- **Kaushik, S.**, & Kukreti, S. (2020). Formation of a DNA triple helical structure at BOLF1 gene of Human Herpesvirus 4 (HH4) genome. *Journal of Biomolecular Structure and Dynamics*, (just-accepted), 1-15.
- **Kaushik, S.**, Kaushik, M., Barthwal, R., & Kukreti, S. (2020). Self-association of Coralyne: An ordered thermal destacking. *Results in Chemistry*, 100043.
- Bansal, A., **Kaushik, S.**, Ahmed, S., & Kukreti, S. (2019). Autosomal dominant Polycystic Kidney Disease: A Review. *Journal of Biomedical and Therapeutic Sciences*, 6(1), 15-23.
- **Kaushik, S.** (2017) Sequence Specific Structural Polymorphism of DNA. *International Journal of Research and Analytical Reviews*, 4, 53-58.

- **Kaushik, S.**, & Kukreti, S. (2016). General Techniques for Biomolecular Characterization. *Imperial Journal of Interdisciplinary Research*, 2, 998-1002.
- **Kaushik, S.**, & Singh, A. (2016). An Overview of Theranostic Approaches to Cancer. *BAOJ Cancer Res Ther*, 2, 024.
- Kaushik, M., **Kaushik, S.**, & Kukreti, S. (2016). Exploring the characterization tools of guanine-quadruplexes. *Front Biosci (Landmark edition)*, 1(21), 468-478.
- Kaushik, M., **Kaushik, S.**, Roy, K., Singh, A., Mahendru, S., Kumar, M., Chaudhary, S., Ahmed, S & Kukreti, S. (2016). A bouquet of DNA structures: Emerging diversity. *Biochemistry and biophysics reports*, 5, 388-395.
- Kaushik, M., **Kaushik, S.**, & Kukreti, S. (2014). Advancement in the Structural Polymorphism of G-Quadruplexes. *International Review of Biophysical Chemistry*. 5, 37-46.
- **Kaushik, S.**, Kaushik, M., Svinarchuk, F., Malvy, C., Femandjian & S., Kukreti, S (2011). Presence of divalent cation is not mandatory for the formation of intramolecular purine-motif triplex containing human *c-jun* protooncogene target. *Biochemistry*, 50, 4132-4142.
- Kaushik, M., **Kaushik, S.**, Bansal A., Saxena, S. & Kukreti, S. (2011) Structural Diversity and Specific Recognition of four stranded G-quadruplex DNA. *Current Molecular Medicine*, 11, 744-769.
- Kaushik, M., Prasad, M., **Kaushik, S.** & Kukreti, S. (2010). Structural Transition from dimeric to tetrameric i-motif, caused by the presence of TAA at the 3'-end of human telomeric C-rich sequence *Biopolymers*, 93, 150-160.

Book Chapters

1. **Kaushik S.** (2021) Nanoproducts: Biomedical, Environmental, and Energy Applications. In: Handbook of Consumer Nanoproducts. Springer. pp 1-26.
2. **Kaushik S.** (2020) Polymeric and Ceramic Nanoparticles: Possible Role in Biomedical Applications. In: Hussain C., Thomas S. (eds) Handbook of Polymer and Ceramic Nanotechnology. Springer, Cham. pp 1-17.

Research Interests

Biophysical & biochemical aspects of nucleic acids, multistranded DNA structures, DNA-drug interactions using UV-spectroscopy, UV-thermal denaturation, gel electrophoresis and circular dichroism.

Memberships

- Life Member, DNA Society of India (DSI)
- Life Member, Indian Society of Analytical Scientists (ISAS)